MICHIGAN FARMER.

Devoted to Agriculture, Horticulture, and Domestic and Rural Affairs.

NEW Perfect Agriculture is the foundation of all Trade and Industry.—Liebig. SERIES.

VOL. VI. DETROIT, APRIL 15, 1848. NO. 8.

DETROIT HORTICULTURAL SOCIETY.

At the late annual meeting of the Detroit Horticultural Society, the following memoir was presented by their worthy President, J. C. Holmes Esq., and by a unanimous vote, the society requested a copy for publication in the Michigan Farmer. It will be interesting to our readers both in city and country, to know what is being done here to create a taste for horticulture, and to advance the general interest of the cause. The memoir is also valuable as containing important suggestions from one who has much practical knowledge of the subject of which it treats, as the columns of the Farmer from time to time, abundantly testify. We trust the noble example set by this society, will not be lost upon the friends of the cause in other portions of the state. Farmer's Clubs, embracing as objects of attention, both agriculture and horticulture, should be as numerous as are the school districts in the Commonwealth.

Gentlemen of the Detroit Horticultural Society:

The Detroit Horticultural Society was organized on the evening of March 5th 1846. At its organization, there were but ten persons present. At its second meeting, which was held at Mechanic's Hall, on Monday evening March 16th 1846, there were present some forty persons, at the close of the meeting, several gentlemen came forward and signed the constitution, increasing our number to twenty-five. We now number between sixty and seventy, showing an increasing interest among our citizens in the science of Horticulture and the welfare of this society.

During the summer of 1846 the society held three exhibitions. The first was held on the 26th June. Nothwithstanding the unfavorable state of the season, (it being exceedingly dry,) the exhibition of fruit, flowers, and vegetables, far surpassed the expectations of the most sanguine. The number of exhibitors of fruits, was ten, of vegetables ten, of green house plants and cut flowers fifteen. The second exhibition took place at the society's room, in the brick block opposite the Michigan Exchange, on Friday August 21st. There were forty three exhibitors of fruits, 18 of vegetables and 14 of green house plants and cut flowers.

At this exhibition, the amount of money awarded for premiums was $20. The collection of fruits, and vegetables was large, rare and beautiful. The show of flowers was good, but not so extensive as was anticipated. The crowds of visitors at this exhibition, admonished us that our room was quite too small for the accommodation of our exhibitions.

Our third and last exhibition for the year 1846 was held on Tuesday 22d September, at which there were forty-one exhibitors of fruits, 13 of vegetables, and 14 of green house plants and cut flowers. The amount awarded for premiums was $40. For this exhibition the society procured a room double the size of the one they formerly occupied, yet the tables were well filled, with fruits, flowers and vegetables, all of them of superior quality and beauty; the sight of which well repaid the members for all their trouble and expense.

The first exhibition for 1847 was held May 26th. No fruits were exhibited. The number of exhibitors of early vegetables was two, of green house plants and cut flowers ten. Notwithstanding a heavy rain storm during the day our exhibition was pretty good for so early in in the season.

The second exhibition for 1847 was held June 25th at Odd Fellows Hall. There were 9 exhibitors of fruits, 4 of vegetables, and 10 of green house plants and cut flowers. The display of small fruits was better than at any previous exhibition.

The amount of money awarded for premiums, was $30.

The third exhibition for the season was held at Odd Fellows Hall, on Tuesday August 24th. There were 40 exhibitors of fruits, 8 of vegetables, and 23 of green house plants and cut flowers.

No premiums were awarded at this exhibition but the show of fruits, flowers, and vegetables far exceeded any exhibition of the season.

A new interest appeared to have seized the people with regard to Horticulture, and our tables were well filled with Pomona's and Flora's riches; Bacchus also stepped in, and deposited upon the tables a few bottles of very excellent currant wine.

The visitors were numerous, and felt themselves well repaid for their stroll into our room.

The society's last exhibition for 1847 was held at Odd Fellows Hall on the 28 and 29th of September.

There were 28 exhibitors of fruits, 11 of green house plants and cut flowers, and 11 of vegetables.

At this exhibition we tried the experiment of keeping our room open two days. In this we did well; visitors were pleased with the arrangement, and the interest was well kept up, from the opening on the first day, until the close of the second evening. At this exhibition, the amount of money awarded for premiums was $50.

It will be noticed that the number of exhibitors was smaller, than at the exhibition in August. This was not in consequence of a loss of interest in the exhibitions, but it took place about two weeks too early for most kinds of late fruits and too late for early fruits, yet our tables groaned under the weight of the noble fruits and vegetables that were deposited upon them. We noticed several new contributors, and some varieties of fruit upon the tables, we had not seen there before.

Several specimens of fruits were sent in from the country for names. Your committee on fruits, named them as far as possible, and communicated their decisions to the donors.

The amount of money awarded for premiums in 1846 was	$60 00
The amount awarded in 1847 was	80 00
making in all	$140 00

You, having heard the reports of the several committees, it is unneccessary for me to go into a detailed report of the different departments.

The society having a short time since elected me Librarian, I would state, that all the works ordered by the society to be purchased, have been purchased, with the exception of Downings Fruits and Fruit Trees of America, with colored plates. This has been ordered but not yet received.

The first volume of the Horticulturist was received. In consequence of there being no Librarian until lately, none of the numbers of the 2d volume have been received.

The books belonging to the society and now in the hands of the Librarian are, Loudon's Hortus Britanicus, North American Botany, by Eaton and Wright, Downings Fruits and Fruit Trees of America seventeenth edition, and the first volume of the Horticulturist.

Downings Fruits and Fruit Trees of America was presented to our society by the American Institute of the city of New York, at their annual fair, for five varieties of extra large apples.

These apples were raised in Plymouth, and presented to the Institute in the name of the Detroit Horticultural society, by onr friend and co-laborer Judge Barker.

This contribution was noticed in the New York papers in the following manner: "we have before us four big, bouncing, apples, the very best of the sort and where do you think they came from? New England? No! New York, Ontario, or say Monroe? No! Where then? Why they came all the way from Michignn.

They are the present of the Horticultural Society of Detroit to the fair of the American Institute, and came from the town of Plymouth, and were raised by B. G. Barker Esq. a New York merchant, who retired some years ago, to try his fortune in Michigan as a farmer.

We expect to have great pleasure in eating the monsters."

At our last exhibition, a small collection of fruit was made from our tables and forwarded to Connecticut. Israel Coe, Esq. took charge of this fruit and presented it to the New Haven County Agricultural Society. It was, by them exhibited at their fair at Waterbury on the 6th October. The following notice I take from the society's report of their fair, viz: 'A plate of fruit from Israel Coe, Esq. of Detroit, Michigan, attracted much admiration, for their superiority of size and fairness. One of the Apples weighed 1 lb and 3 oz."

Althouh our society is now in a flourishing condition and continually increasing in numbers, I am sorry to say that some who were very active and efficient members during the first year of the existence of the society, have not only, not contributed to our exhibitions, but have not appeared at our business meetings during the last year.

The society's exhibitions have generally, been not only good, but a greater variety of rich, rare, and beautiful fruits, flowers and vegetables, have been exhibited than we anticipated.

We think the fruit department bids fair to excel and bear away the palm from the vegetable and flower departments. I hope something may be done, to create a deeper interest, in these departments, by offering larger premiums or some other means, so that the contributors of vegetables and flowers may at future exhibitions be much greater and the varieties more extensive. When our citizens enter our exhibition rooms, they expect to see there, a large collection of choice vegetables. They expect this society to set their standard of good fruits, vegetables and flowers, high; and they expect cultivators to come up to that standard, and that not only our exhibition rooms but our markets will daily tell what that standard is.

A few days since I received the report of the Buffalo Horticultural Society for 1847. In it I find the following remarks viz:

A highly important feature, in the administration of the duties attendant upon our efforts of labor and usefulness in the management of this society, are the Ladies' committees of arrangements, both senior and junior. These consist of twelve married and twelve young ladies, appointed anew for each monthly exhibition; em-

bracing during the season some one hundred and twenty ladies, and to them are we specially indebted for their assiduous and ever tasteful labors, in the decorations of the hall, in the arrangements of the boquets, and their ready co-operation in the duties devolving upon them, and indeed it were but frank to acknowledge, that to the ladies of this society, belong largely the honors it has received, and the success that has accompanied it from its very existence."

I also find in this report, the following extract from their By-Laws. "Any Lady or gentleman may become a member by paying one dollar." Should we follow somewhat, the arrangement of the Buffalo Society, and admit ladies as members, and appoint them upon committees on decorations, we should never again witness so meagre a show of flowers as we sometimes have.

To be Concluded.

The Prairie Land.

Dr. Kennicott, of Cook Co. Illinois, proprietor of "Grove Nursery," writes to the editor of the Iowa Farmer, published at Burlington, Iowa, in the following strain.

"And is not this, *our* land of promise, a beautiful land? Hast thou watched the developement of its latent capabilities, as we have? About fifteen years ago, when those of our name and blood began to collect and concentrate near this spot, it was very beautiful:—but 'twas "the beauty of the dead," or rather, that of half conscious sleep. The sun shone upon it, and the wind passed over the face of the landscape, and like the sleeper, it smiled for gladness of its own rich promise. It was an exquisite picture of still life,—grand,—beautiful and boundless,—with the imprint of the Deity,—so plain,—so vivid; in relief, so bold,—in tracery, so delicate,—in conception, so infinite,—that the veriest Atheist (if there be such an animal,) could see thereon the marks of God's own engraving hand.

And then the Red Native of the soil yet lingered here (without whom no virgin landscape of America can be complete) a poor degraded remnant,—

"Whose battle yell
Was to the foeman harbinber of woe
And on his freezing spirit fell
Like the Death-Angel's summons."

"The Indian," driven by hard necessity, has gone towards the setting sun, and the patient husbandman of the far off east, has, in his turn dispossessed the shy and restless borderer; and the land is fulfilling its destiny. We are already in the midst of an old and rich country, far, far more advanced than was Western New York fifteen or tweniy years ago, in education, in commerce, in agriculture and horticulture,—and we may soon add,—in population. We read more papers like the "Prairie Farmer," and the "Iowa Farmer,"—we cultivate our land more scientifically, (the masses;) we have more gardens now, and these contain more plants, than did theirs at that time; perhaps nearly as many as theirs can show now. In pomology, we are not ten years behind them, and will ere long be ahead of them.

[What the Dr. says about the advanced state of agriculture and horticulture in the state of Illinois, as compared with the older sections of country, is certainly creditable to that youthful state. And what he says about the goodliness and beauty of the land, gives us a ravishing view of its maiden loveliness. But, after all, there is no paradise on earth. "The Prairie land" may come as near it, for aught we know, as any place on this side Heaven, but there is always something to spoil every thing earthly. The Dr's picture, is left unfinished. To make it complete, he must put some touches to it, which will represent the bleakness of a prairie winter, (especially of such prairies as they have away out there in Illinois,) also the dust of a prairie summer, and O such dust? If to offset against this, by way of relief, he could have gotten into the picture a plenty of clear-running streams, gushing fresh and pure from their fountains, it would have helped the matter mightily, and if he could not well get in the soap that might be left for the imagination to supply. The picture should also have been daubed with prairie mud. And as for trees but we forbear,—we would not, if we could break the spell of enchantment which, the enthusiastic Dr. K. has thrown around "Prairie Land." Ed Michigan Farmer.]

Important to Wool Growers.

Mr. Blanchard keeper of the Wool Depot at Kinderhook, says:

I have seen flocks which were well kept for six months after shearing, and then run down in flesh and remain poor until the next shearing, when the outer end of the staple was one full quality in fineness below the inner end; also when the animal had been well kept at the beginning and end of the year, but poorly kept and run down in the winter, that the middle of the fibre showed the same difference. This not only reduces the quality of the wool in the stapler's scale to the lowest coarsest grade in the fibre, but also makes the fibre weak and tender in the fine part grown when the animal was poor. The result of bad keeping, also, often injures the health of the sheep, which in addition to the evils spoken of gives the wool a knotty appearance and a tightness near the bottom, which materially reduce the value of the fleece.

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How to Wash Sheep Right.—Mr. Blanchard further says:

"Just previous to washing, the sheep should be thoroughly wet without squeezing the wool and suffered to stand crowded together for a few hours, until the soapy substance and oil or gum, which the wool contains, unite; when again taken into the water and the wool squeezed with the hands, the whole of the filth readily separates from the wool and passes off with the running stream. In the common mode of washing, the soapy substance first passes out of the wool partially uniting with the oil and gum, after which it is impossible to remove the gum, no matter how much time may be spent in washing."

How to Fold the Fleece.—Mr. Blanchard adds, after shearing, the fleece should be removed to a table or clean smooth place on the floor, with the inner part down; then be gathered up into as compact a position as it occupied when on the sheep; the sides of the fleece should then be folded over, so as to meet upon the back of the fleece; the head and neck thrown back so as to make the fold upon the shoulder, next be folded or rolled from the butt of the fleece and continued until you reach the shoulder. The fleece should then be snugly tied with a small, smooth twine, passing around two or at most three times. You thus have a compact fleece, easy to open, and the shoulder, which is the finest part, upon the outside. Buyers always expect to see *the best side out.*

From the Boston Cultivator.

Agricultural Science.

I have already remarked, that much of the iron in soils is derived from the decomposition of rocks containing sulphuret of iron, both the sulphur and iron, possessing the property of attracting oxygen from the air, and forming sulphate of iron—which is easily decomposed if it comes in contact with any of the akaline bases, the iron is set free, as peroxide of iron. This is probably the way in which such quantities of iron ore as 'tis called, have been formed, that are found in the hard, iron cemented subsoils of many farms.

Every observing farmer who has plowed up the hard iron cemented subsoil, knows it will usually remain in hard pieces, like frozen earth for the first years. The iron in such cases is called prot-oxide of iron—iron combinded with oxygen in the proportion of 77 per cent of iron and 23 per cent of oxygen; in this state the iron is soluble in water, and iron dissolved in water is not the best kind of *liquid* to manure our crops with. But the prot-oxide of iron after being broken up by the plow, and exposed to the action of the atmosphere, combines with another equivolent of oxygen and is converted into per-oxide of iron, which is not soluble in pure water. This change is effected by a combination of 69 parts of iron and 31 of oxygen. The oftner such soils are plowed and stirred by the harrow, the better, as there will be by its exposure to the air a less amount of prot-oxide of iron in the soil. This accounts for the saying, the more hemlock and spruce lands are worked, the better—as hemlock land generally contains much iron.

We frequently see small pools of water that have oozed from the base of hills, in the summer season, covered with a reddish pellicle, formed upon the surface of the water. This is prot-oxide of iron in solution, (dissolved in water.) It rises to the surface and combines with another equivalent of oxygen, and is changed to per-oxide, it then falls to the bottom of the water, and coats the soil and rocks with a sediment of insoluble per-oxide of iron' that is, it is insoluble in pure water, but both these are soluble in water containing acids, the first or prot-oxide, however, dissolves in much greater quantity in the same weight of acid, and it is the compounds of this oxide, which are present, in the soil in boggy land, and proves so injurious to vegetation. When it accumulates in ponds, it is termed hydrate, or bog-iron-ore.

For the *permanent* improvement of soils containing iron in excess, I know of no other remedy but underdraining and subsoiling; by this process the crust, or hard subsoil will be broken up and the drains will carry off the dissolved iron, and in time remove it from the soil. Lime applied to such soils will have a good effect, whether spread, or mixed in compost as I have proved in more than one instance. When I have composted at the rate of two loads of swamp muck and one of manure, which lay several months and then shoveled over, and two bushels of newly slacked lime, mixed to a cart load of the compost, a load of this compost was worth more than two loads of stable manure from the stage tavern—not for the *first* year of its application, but from its permanency.

But for those having such land, who cannot underdrain, nor purchase lime, there is one other remedy—*manure well*, and for a crop of corn apply a pint or two of fine rich compost manure in the hill, at the time of planting the corn. On my farm, a single handful of rich manure in the hill has more than doubled the crop of corn and fodder.—The different kinds of black berry, or bramble plant find a congenial soil where iron abounds, as also Johnswort, golden rod, &c. And these soils generally run into red-top grass, after being newly stocked down and mowed one or two years.

L. Bartlett.

February, 4th, 1848.

Mocha Hogs.—Silas Stephens writes in the Prairie Farmer of the Mocha breed of hogs in the following very complimentary terms.

"They usually attain their growth at about 7 or 8 months, and when well kept will at that

age weigh from 200 to 250 lbs. and I thing may easily be made to come up to 300 at 9 months. They require but one half the keeping that the common breeds do, not to say any thing of the land pikes, one of which would starve on the feed that would fatten two of these fit for market. I have one at present that it would be difficult to improve in beauty of form. She is borne up scarce three inches from the ground by her short legs, and is estimated to weigh at the age of 6 months, 200 to 250 lbs. No man can obtain a correct idea of the animal unless he sees it; and any judicious pork raiser would soon part with all other kinds for the Mocha. The greatest trouble is to keep them from fattening too fast. Ours will fat on four or five ears of corn per day at the age of eight months and is good pork, and always has been fit for the knife.

Transpianting Fruit Trees.

To remove a young fruit tree from the nursery, without a loss of a part of the roots, is totally impracticable. A network of fibres often extends on every side, to a distance quite equal to the height of the tree. Roots more than a foot in length, except for unusually large trees, are scarcely ever taken up by the most careful nurserymen. Hence a considerable excision becomes unvoidable. As the roots which remain to the tree, must supply moisture for all the leaves, it becomes evident that the number of leaves must be either lessened, or else each leaf will only receive a partial supply, in which latter case, its growth cannot be healthy and vigorous.* The top should therefore be trimmed by the knife, at least as much as the roots have been trimmed by the spade. Trees four or five feet high, usually lose at least half their roots by removal, and those nine or ten feet high probably at least four-fifths,

The amount of thinning at the top, must however, vary somewhat with the species of fruit tree. Some, as the peach, have a strong reproductive power. A young peach tree, may be cut off at the surface of the ground, in spring, and a new shoot will arise and attain a height in autumn nearly equal to that reached where there is no heading down. The practice is common among nurserymen, of removing peach trees while in bud; these are headed down nearly to the surface, yet such buds often make a growih the same season nearly or quite equal to those buds not transplanted. Hence, a transplanted peach tree will bear a very heavy pruning at the top, with no ultimate loss, but an actual gain, in the growth and size of the tree. A cherry tree has less reproductive power—a young seedling cherry, headed down when transplanted, will not make near so fine a growth as if left uncut at top. Hence cherry trees should be more sparingly pruned when set out. The reproductive power of the apple lies between the two; and should consequently receive a considerable, but not excessive pruning.

Many experiments might be adduced to show the advantages of freely pruning transplanted trees. As a sample of the whole, we need only to refer to two interesting experiments given in the Horticulturist. One hundred and eighty apple trees, in fair condition, were transplanted carefully in good ground. One half had their tops shortened back, so as to leave only one bud of the previous season's wood, The other ninety were set out without any shortening. Of the pruned trees, only *two* died—of those not pruned *eight* died. The pruned trees nearly all made vigorous shoots—some eighteen inches. The unpruned grew but little, none making shoots over six inches. The second year, the pruned trees outstriped the others in size and growth, and presented a much more luxuriant aspect. The second experiment was performed with 78 peach trees, three years from the bud, and consequently of large size. One half had their heads reduced one half; the other were planted entire. The season was dry. *One* only of the pruned trees died, the rest made fine bushy heads. *Twelve* of the unpruned trees died, and none made a fine growth, many of the branches dying—nature thus performing imperfectly what the knife should have done.—*Cultivator.*

Mulching Fruit Trees.—A correspondent of the Horticulturist planted 150 trees in an orchard in very good but rather dry soil. All were planted with equal care, but a third of them were *mulched*, on the surface of the ground when planted, covered with 6 inches of litter. Those thus treated all lived; but 15 of those not mulched died in the hot dry weather of midsummer. It is not stated that the soil was kept clean and mellow around them, which will often save the life of trees, when they would die of neglect.—*Cultivator.*

Work.—Labor is a Divine institution. There is not a creature that lives that can be healthy, happy, useful, good or great, without constant activity. The body cannot be developed and strengthened without exercise, nor can the mental powers be cultivated highly, without continual occupation. Motion is the great law of life. Immobility is death. To make labor, either to work or play, pleasant and attractive, instead of tedious and repulsive, only requires that it be conducted in conformity with both the moral and physical laws of our being. Thus would we seek our own best good, without conflicting with any interest of society, but rather conducing to all.

> There is a fire-fly in the southern clime,
> Which shineth only when upon the wing;
> So is it with the mind; when once we rest—
> We darken.

For the Michigan Farmer.

Letter from Russell Cobb.

March 23d 1848.

Dear Sir.—Inclosed you will find my subscription for the Michigan Farmer, a pretty good price for its size, but then we like it, because it is a Michigan paper, and we like the way it is edited, not altogether a copy of other papers or old writings, but considerable that is new, and written by common farmers like ourselves.

I like the way you improved upon my idea in in a former communication. That is what I meant exactly, and I shall send in the first instalment of my subscription to the Farmers Knowledge Bank, and in hopes of some improvement, I will tell you what I know about rust. Three years ago last harvest, I helped a neighbor to harvest some wheat, in the county of Oakland. We commenced in the morning with three cradles in one of the heaviest dews I ever saw, which did not go off till ten o'clock, when we commenced taking up what we had cut, and before we had raked the first swaths, we observed that the standing grain was struck with rust, while that which we had just cut, was perfectly bright, and and continued so while the standing grain grew more rusty all day. Now I want some one to improve upon these facts, to observe and analize what country people call a honey dew; for after such a dew, you will be sure to find rust. Then, as the dew exhales, examine with a good microscope, and see what the operation will be, and also see if you can find any rust when there is no honey dew.* As for a preventive I know of none that I consider available. Some kinds of wheat are less injured by rust than others, and the earliest kind, are generally the best. A writer in the last volume of the farmer who signs himself "chemico," (which I understand to be home-made latin for a half way chemist) tells us we must sow a quantity of charcoal or ashes, when the wheat is in blow, and repeat if necessary. Now I should Like to see him or any body else sow 8 or 10 bushels per acre of any thing upon some such wheat as I have seen in Hadley when in the blow. He says, go up and down the furrows, it is not every wheat field that has furows except for drains.

By the way, that *deeper* philosophy, I should like to see it. Colonel Cost's philosophy was but a surface philosophy after all. Now for the facts. Plow your ground for corn, oats, wheat, or buckwheat, and let it lay a spell before you plant or sow, and they will grow better by odds than to plow and plant or sow directly, and the ground is not harder but mellower, and if there is a better or a deeper reason than I gave, I want to "learn it," and I am not alone in it.

I agree that the Berkshires did some good, but there was more cry than wool, or pork either.

A good selection, a proper cross, and plenty of good feed, will make good hogs of any kind, and without so much noise or expense.

It is the common belief that sheep will not do well in the same place for many years together? Can any one give us the why this is so? O yes, the change of climate. We know that, but how does the climate operate on sheep, tell us how, if you please.‡

One thing more and I close. A cure for cholic in horses, and no mistake. Give a quart of good beef brine, stir your horse a few minutes and he will be well.

Written in a hurry, with a poor pen, and poor ink, and by candle light, and after a hard days' work in the sap-bush.

Yours, &c., Russell Cobb.

*Query? What is the difference between what friend Cobb calls "a honey dew," and a very gentle, warm rain, or mist, so far as the effect is concerned?

†Friend Cobb is rather adroit in shifting the question. The true question at issue is, whether "the influence of solar heat, of the atmosphere, rain and dew, extends as deep as we commonly plow." It is nothing against a man to be mistaken sometimes.

‡In propounding questions for solution, two things should be kept in view: 1st. Is the question propounded, in the nature of things, susceptible of solution? 2d. If solved, would the result be of any practical use?—[Ed.

The way Mr. Sackett raises Corn.

For the Michigan Farmer.

East Raisinville, March 12, 1848.

In the first place, manure your land as high as possible, taking the condition of the land and the amount of manure on hand into the account, but put it all on to corn and potatoe fields; second, plow as deep as possible with team to be used, and if the team is light change with some neighbor and get more, for deep plowing is one of the essentials in a good corn crop; third, plow twice if the manure is sufficiently rotted to allow it, and drag after each plowing thoroughly; fourth, furrow each way as deep as may be, for by this time the soil will be so mellow that it will partly fill up the furrow and make a good bed for the seed. Now comes another great point—know positively that the seed is the best of all and no mistake. I should have said for the dent corn the rows should be four or four

and a half feet apart each way; for the flint, either the yellow or white, three or three and a half feet. From sad experience in soaking seed, I plant dry. I say then, plant DRY, four seeds in a hill, and cover six inches deep, with mellow dirt. The first time go through with a plow, turning the mould from the corn. I prefer the plow in this stage, as it may be run close to the corn without injury; the weeds have had equal chance with the corn, and more will be killed by the plow than by the cultivator. All other labor which is bestowed, can be done with the cultivator, and Harrison's is, in my opinion ahead of every other implement I ever saw.*—As to the number of times, I say, be governed by circumstances; if the weeds come up *kill them*, if they come again KILL THEM, if they come again *kill them sure*. If the season is dry and hot, and the leaves begin to curl, then work it again, and if possible, do most of the work when the due is on. Last season, I went thro' one piece of my corn once with a plow and four times with a cultivator, and I harvested over 100 bushels of ears dent corn to the acre, while on another piece which was not worked as much, I harvested only fifty, and some of my neighbors did not get 25 bushels.

Some of my neighbors object to the deep covering, but I have satisfied myself by trying every depth, from a half inch to drawing a deeper furrow and placing the seed in the bottom, drilled in and turning two furrows into it, and I have found universally, that deep planting is the best in all cases, for the following numerous reasons. First, the birds cannot disturb it.—Second, it is not as liable to be covered or misplaced by the plow for it is little raised above the surface. Third, the roots are not liable to be affected by the drouth, and it continues to advance, from the time it is up, until it has completed its growth. Again, the earth becomes compact around the stalk, and the roots take a firm hold, and of course, it is not as likely to blow down. I never use the hoe, only to kill the weeds, never to draw the earth to the hill, but would rather take it away to kill the weeds, than to hill it up, as it is called. If there is any question as to a good crop of corn and few weeds, come and see mine.

Yours truly, LEANDER SACKETT.

*Mr. Harrison, to whom this compliment is paid, is the author of the following communication.—[ED.

The way Mr. Harrison raises Corn.

For the Michigan Farmer.

FRIEND ISHAM:—I tried an experiment on corn the last year that convinces me that the trade of farming is not half learned yet. I had a piece of land of 1¼ acre that I had kept for a yard for my cattle and hogs in the winter, and which I cropped in the summer. I had heard so much about plowing deep I thought I would try it, so I put the plow in beam deep, I should think 12 inches at least, then took a large cultivator and crossed it back and and forth, I should think about the depth the plow went, then I marked out the rows three feet and four inches apart, then planted it in drills with the red cob dent corn, dropping it from six to eight inches apart, covering it about two inches deep. After the corn was about four inches high, I passed thro' it with a three point cultivator back and forth between the rows, not using the hoe. After about ten days I put the cultivator through again then went through it with a hoe, pulling it out where more than one stalk stood together.—Then, about the time it began to show the tassel, I passed the cultivator through a third time, then went through and took all the suckers off, and pulled up all the weakly looking stalks that were not able to produce a set for an ear, keeping the ground as level and smooth as possible. I harvested 146 bushels of corn, by weight, from 1¼ acre, after picking green corn and cutting up some for feed. It suffered by intruders, I should think, 20 bushels. I likewise had six acres in another field, which was sod land. I spread over it a heavy coat of straw, plowed it under about nine inches deep. A hand followed the plow to tread the straw into the furrow, with a fork in his hand to clear the way for the plow. Then I went over it with what I call a smoother to fill the cracks of the furrows, leaving the straw completely covered. I marked it out in rows both ways three feet apart, went through it three times with a cultivator and once with a hoe, spending about one day's work on two acres. I harvested 100 bushels to the acre,

I consider straw plowed under deep, not only beneficial for manure, but it acts as a sponge, takes in when wet and pays out when dry.

A. HARRISON.

Blissfield, March 20, 1848.

Encouraging Words.—And what is better the pay for two copies of the Farmer came along with them.

White Lake, March 25th 1848.

FRIEND ISHAM.—I can say, that I am much pleased with your paper, and shall do all I can to sustain it. I formerly thought that book farming was of but little use, but I give it up, and admit that the old saying is true, that "two heads, are better than one, if one is a dough head."

The farmers of Michigan can now put their heads together and tell each other what they want, as well as "what they know."

S. VOORHEIS.

XUM

MICHIGAN FARMER.

WARREN ISHAM, EDITOR.

PUBLISHED SEMI-MONTHLY—TERMS $1 IN ADVANCE—FIVE COPIES FOR $4.

"Home, Sweet Home"

Reader, have you a home? Is it a pleasant and goodly one—the abode of peace and of every gentle affection? Is it pervaded by an atmosphere of love? Is there a sun in your domestic sky? Is there a well-spring in that consecrated spot, whose refreshing waters never run dry? We do not ask if that atmosphere is always pure, that sun never clouded, and those waters never turbid. But is there such an atmosphere, such a sun, and such a well-spring? If so, then are you a happy man. If not, then are you miserable enough.

If you have no such home, no such atmosphere pervading it, nor sun, nor moon, nor star to light up and cheer it, no such refreshing waters there—then where, in all this bleak and desolate world, will you go for enjoyment? No matter what else you can call your own. Of what avail, in such a case, are your waving wheatfields, your bursting granaries, your herds and your flocks? Reader, did you ever reflect how much your happiness in life depends upon a happy home? You do not, *cannot* realize it now, but suppose an unjust, tyrannical and cruel government should tear you away from your loved ones, and force you into dreary, hopeless exile, then the case would be far otherwise, and tho' sustained by conscious innocence, what but the arm of the Eternal One could hold you up?

Home! What magic in that word! How thrilling the associations it wakes up in every sensitive bosom? O if there be an *oasis* in all this desert world, that favored spot is the domestic hearth, around which kindred hearts mingle their sympathies, and pleasant looks, and gentle voices shed their magic influence. Not that even here happiness without alloy is to be found. O no, we must wait for that until we get on the other side of the tomb.

But after all, the domestic circle, such as it should be, and as Heaven intended it to be, is earth's sunny spot. All the world besides, so far as the enjoyments in its gift are concerned, is one dreary blank. Go up and down through all its length and breadth, explore every avenue, unlock every secret place, and traverse every labyrinth, and where else will you find any thing which deserves the name of enjoyment?

But O how sad the truth, that a happy home, like every other imaginable state, has its opposite, that these elements of enjoyment may be so changed in the domestic laboratory, that in the place of unreserved confidence, will be found cold distrust, in the place of love, implacable hate, in the place of peace, jarring discord, and in the place of happiness, misery—and where in all earth's receptacles of woe, will be found misery like that?

And have you a happy home? Guard it then with sacred care, against the intrusion of influences which will work such desolating effects.

Cultivation of Madder.

RURAL VALE (LAPEER CO. March 29, 1848.

MR. ISHAM.—Sir: A friend of mine wishes me to make the enquiry of you, relative to the culture of Madder, in this vicinity—whether it can be cultivated with advantage, and the mode of cultivation, and what kind of soil is best adapted to its culture.

Respectfully Etc. G. A. GRIFFIN.

ANSWER. A rich sandy loam constitutes a soil best adapted to the cultivation of madder. Any good soil, which is neither so clayey as to be very stiff, nor so sandy as to be very light, and which is reasonably dry, will do very well. Manure, of course, will add to the result. The ground, should be plowed as deep as possible, the downward roots being the ones used for dying, and they sometimes penetrate to the depth of three feet. The mode of propagating, is either from the seed or the offsets, that is, the runners, or surface roots. These runners which spread themselves out near the surface of the ground are cut into pieces, from six to twelve inches in length. The time for planting is not far from the proper time of planting corn, perhaps a little later. The mode of cultivation is various: some follow the plow, depositing the sets or cuttings in the furrow, in a standing or slanting position, so that the next furrow will cover all but the top ends. Others set them in the ground, when properly prepared, in rows ten or twelve inches asunder, and five or six inches apart in the row. Others again, throw the ground into beds with spaces between them, the beds being some three feet wide, and place

a row of cuttings about six inches from each of its edges. The crop of course must be kept clear of weeds by hoeing. Madder is a perennial plant, growing up in summer and dying down in winter. It does not attain maturity so as to be suitable for dying purposes, until the autumn of the third year from planting. October is a suitable time for harvesting it. The roots should be turned out with the plow, the deeper the plow penetrates the more will be saved of course. The surface roots are to be saved for planting, and the downward roots cleansed, dried, and pulverised by grinding, for market An acre will yield from one to two thousand pounds of the dried root. It is said to be a very profitable crop. The wholesale price in New York, is from 11 to 13½ dollars per cwt. according to quality.

Have any of the readers of the Farmer tried their hands at it, or lived in the neighborhood where madder was cultivated? If so we hope they will tell "what they know" about it, and that straightway.

The Wheat Crop.

An individual who has traversed a great portion of the state of Michigan, tells us, that the fears which have been entertained in regard to the wheat crop, are fast subsiding, that fields which were supposed to be ruined last fall, are putting on a promising appearance, and that the farmers are every where beginning to hold up their heads, in anticipation of a remunerating harvest. We certainly rejoice with them.

By the way, great numbers have declined subscribing for the Michigan Farmer *this year*, because they feared their wheat crop was going to be cut off. Now then is a good time for the friends of the Farmer to press its claims.

☞ We are beginning to count up our correspondents by scores. But that is not enough. We want to count them by hundreds, and we are in a fair way to do so, if they go on increasing as they have begun. And there is no lack of talent among the farmers of Michigan.—Deem it not flattery when we say, that we have traversed nearly every state in the Union, & that nowhere have we met with as large an amount of intelligence among the farming population, as in Michigan, not even in old Massachusetts. If this talent can be fully drummed out, we can enter the list with as strong a team, to say the least, as any agricultural paper in the land.

☞ *Remember*, that we propose to give receipts in full for the year to those of our subscribers that have not paid, upon their sending us one dollar in cash, together with an order for an additional copy of the Farmer, or the name of one new subscriber.

Still better terms. To any of our subscribers who have not paid, we would say, that they may still avail themselves of our club terms, *provided* not less than three out of five members of the club, are new subscribers.

And remember, that the entire avails of all such accessions to our subscription list, are pledged to be laid out in improvements on the paper.

Our friends are just beginning to wake up on this subject, if they go on as they have begun, we shall be able in a few months to place the Farmer above all competition.

For the Michigan Farmer.

ADA, March 24th, 1848.

MR. EDITOR.—Enclosed is the subscription price of your paper, which I consider to be invaluable for a young farmer in this country.

Suppose some of your subscribers that have been through the mill, would tell us the cheapest and best way to clear up a new farm, and get rid of the grubs, so that we may not labor in vain, like the man who falls a tree and commences at the top to trim it up, with the brush in his face; and if it is advisable to plough deep at first, or to increase the depth as the land grows older.

Truly yours H. HOWELL.

[Although the information is asked of correspondents (and they are certainly the ones to give it) we will just put in a word. In regard to the first plowing, we say, plow as deep as possible. Of all the reasons which can be given for plowing deep at all, scarcely one can be selected, which does not bear, with equal force, in favor of plowing deep the first time. We have seen enough of the evils of just skiming the surface at the first plowing, aye, and suffered enough too through the bad faith of those we employed.

In regard to getting clear of grubs, we would also say, "take time by the forelock;" and we know of no better, surer, or prettier way to effect the object, than to attach your mattock to the plow, and whenever your furrow comes close up to the side of a grub, cut it off an inch or two below the depth of the furrow. In this way, you will save yourself all the labor of digging around the root, you will cut it off lower than you otherwise would, so that no obstruction will be left to

the plow, and it will just give your team the time to rest which it ought to have, and has the right to claim, grubs or no grubs. If this will not be " killing two birds with one stone," it will be very much like it. But we do not design to stand in the way of correspondents. Let them " tell what they know."]—Ed.

☞Those of our subscribers who may change their residences about these days, are requested to notify us of the fact, and give us there whereabouts.

For the Michigan Farmer.

Rhubarb or Pie Plant.

No one who pays any attention to the wants, or comforts of his family, but what sets out among the first things in his yard, a good supply of current bushes, and for this he is to be commended, for they can be turned to very good account in sharpening the appetite, and in giving, relish to food. They come too at a season when nothing else can be found as a substitute. But I confess I am a little surprized, that while doing this, they do not go a little farther, and supply themselves with a few plants of the Rhubarb, with which to furnish their tables, with one of the most delicious of all desserts. For pies, or sauce nothing can surpass it, and it is no more expensive than the current, and those who feel themselves able to use the latter need have no compunctions in using the former : it comes too early in the season, just after the winter apples are gone, and when nothing else can be had that is fresh and green, and with proper management a supply may be had, till the smaller fruits furnish a substitute. A large root may be purchased at our nurseries for fifty cents, which may be divided so as to make from six to twelve plants, this in the course of a few years would furnish an ample supply for a family. All the culture it needs is to keep the ground rich, and free from weeds, and to pinch off the flowering stalks as they appear. A.

Transplanting Peach Trees.

Mr. Isham.—Being obliged to transport fruit trees, some distance into this newly settled region and as the fall is much the best time on account of the going, I would like that some of your correspondents would give their opinion or experience, as to how early in the fall it will answer to take them up with safety ; and as I am writing, I will give you my experience upon transplanting peach trees. I think the spring much the best time, and they should stand until the buds are swollen as full as they can be without breaking, and they had better be a little open than not full enough. Being at my neighbors while he was planting peach trees, I told him he was too early. Five days after that, I transplanted. I lost two out of seventy-five, and he lost more than half of his. But I think the best way to get peaches is to plant the pits. Last summer I had peaches on a number of trees, having planted the pits three years before. One tree had 19 peaches on it.

Your obedient servant.

Kent Co. March 18th, 1848. S. M. P.

For the Michigan Farmer.

Mr. Editor.—In conversation with a neighbor the other day he mentioned an improvement in setting back fires. It is neither less nor more than to take a pail or other vessel of water and with a mop cloth, wisp of hay or the like wet a strip, setting your fires on the side desired, and when first commencing they will not pass the strip although very narrow. Thousands may know the same thing, but as I had never heard it before, I concluded there propably might be many others who had not.

Yours E. Morton.

For the Michigan Farmer.

Poultry.

In the year 1845, the value of the poultry in the United States was estimated at $12,000,000. In 1839, the value of that in the state of New York was $2,373,029. The annual consumption of poultry and small game in the city of Paris, usually amounts to £22,000,000 sterling. The quantity of eggs used annually in France exceeds 7,250,000,000, of which enormous number Paris used 120,000,000. The importation of eggs from Ireland in 1837, to Liverpool and Bristol alone, amounted in value to £250,000 sterling. In 1838, eggs were imported into England, (though loaded with heavy duties,) from the Continent, to the value of more than $1,000,000. Eighteen tons of poultry, it is said, left Syracuse, N. Y. in one day, for the Boston market. It is supposed that there may be consumed in the United States 1,400,000,000 of eggs, and averaging the value at six cents a dozen, this would amount to $8,000,000. If we allow an average of five chickens or other kinds of fowls, a year, to each person, at a cost of 12½ cents average ; including turkeys, geese,

ducks, &c., this will amount (in 1845) to more than 97,500,000, equal in value to more than $12,000,000 annually.

It is said to have been ascertained that half a million of eggs are consumed every month in the city of New York. One woman in Fulton market sold 175,000 eggs in 10 weeks, supplying the Astor House each day with 1,000 for 5 days, and on Saturday 2,500. Sixty hens in a confined yard have been known in a year to yield over 4,000 eggs, besides chickens; consuming 115 bushels of various kinds of grain; or nearly two bushels each. ELLSWORTH.

For the Michigan Farmer.

Celery.

MR. ISHAM—Sir: In Mr. Ellsworth's report to Congress, 1845, of the Patent Office, p. 333, is the following letter on the growth of celery. As this excellent vegetable is generally considered difficult to raise; and these invaluable reports of Mr. E's are scarce and difficult to meet with, the information contained in the letter cannot fail to prove interesting to your horticultural readers. Have the goodness therefore to re-print it. *

NEW YORK, Dec. 12, 1844.

DEAR SIR:—The cultivation and growth of celery, that most excellent and wholesome winter vegetable, requires the close attention of the gardner to bring it to perfection. A practical gardner will soon learn the art; and for the benefit of those who have yet to learn it, I beg to hand yoa the result of my own experience for the last 25 years. In this country* it is not necessary to sow the seed before the month of May, and then in the open ground, well manured with stable dung, thoroughly cured, and not less than a year old. The color, whether white or red, is a matter of taste. I generally mix my seed, and thus have both species. The seed is slow of vegetation; but if good never fails to germinate. Whether the seed be sown broadcast or in drills, is of no consequence, as the seed being very small, the plants are sure to sprout up thick.—So soon as the sprouts have attained the height of an inch, they should be pricked out in a bed of rich mould, at the distance of about three inches each way of each other. *You cannot have good strong, stocky plants, without pursuing this method.* If left standing in the seedling bed, they will grow spindling, weak, and consumptive.—No more attention is required, excepting that of keeping the plants perfectly free from weeds until August, when you will find the plants strong, healthy and vigorous. Any time in August dig your trenches, 18 inches deep and as many wide. The quality of the celery, and chiefly its growth depend entirely upon the next step. The trenches should be half filled with thoroughly cured stable manure. I have found the manure used for early hot beds the best. It never fails of success. The increased fermentation of the manure, by the repeated waterings of the beds, the escape of the ammonia, and the noxious qualities of the manure, render it sweet, and capable of imparting the mildest and richest flavor to the plant. If fresh manure from the yard, of whatever kind, is used, the celery will invariably grow strong and rank, with as little delicacy of flavor, as there is in the manure. With a garden fork of four tines, strike through the manure in the trench into the earth beneath, and bring it up fresh, carefully mixing it with the manure as you proceed from one end of the trench to the other. Attention to this point is indispensable to the growth of good celery. The plants taken up should be trimmed about the crown, just as the top of the root; all the young suckers taken off, leaving the plant trim and neat, with all its main stalks. With a dibble, which should be as large as the handle of a spade, as the roots will now be of considerable size, begin at one end of the trench with your face towards the other, and set in a single row of plants in the middle of the trench, and not more than six inches asunder; water them well.—The roots of this plant require more room than is generally allowed them, as any one may see, when they are taken up for the table. Earthing up the plants should be delayed until they have attained a good size; and then it requires care, especially the first time. I always get into the trench myself, and holding the plant with all its stalks firmly in my left hand, with a short handled small hoe, draw the earth up around the plant, without allowing it to come in between the stalks. When this is done, and the plants thus protected, you may, with a spade, strike off the edges of the trench, and partially fill it. As the plant grows, (as it now will, if well watered in dry weather, with great vigor,) continue to earth up, and by the 1st November, the plants will be two feet above the level of the earth, with a main stalk the size of a man's arm.

With regard to the mode of securing the crop for winter use, gentlemen have their fancies. I prefer leaving the plants in their original trenches, earthing up to the top of the plants, and covering them with straw litter and boards, so as to protect them sufficiently from the frost, to be able to take them up as wanted; and this always fresh and sweet. I do not fancy disturbing the roots, and transplanting into narrow quarters. Finally, any one in this country, who wishes to have "first rate" celery, must cultivate it himself. Common laborers are sure to spoil it.—Professional gardeners are seldom found, and are generally too expensive when they are.

Your ob't Serv't,

JUNIUS SMITH.

Hon. H. L. ELLSWORTH.

☞We have received a catalogue, with cuts, and descriptions, of the various improved implements of husbandry for sale at the Albany Agricultural warehouse, kept by Horace L. Emery. See Mr. E's advertisement.

For the Michigan Farmer.

Subsoil Plow.

Mr. Isham:—Being myself an agriculturalist, and feeling a deep interest in every thing of practical importance relating to agriculture, it occurred to me that the result of the use of the subsoil plow, would not be uninteresting to the farming community. In the summer of 1844, I harvested a piece of wheat, comprising *ten acres* of good wheat land, that had been under the plow for about *seventeen* years, ; it had not been seeded, was very much run down, full of "foul stuff," June grass, &c. It was clay soil. My crop of wheat amounted to about 85 bushels.

In June 1845, with the subsoil plow, two yoke of oxen and a span of horses, by *once* plowing, I most thoroughly subdued the grass and foul stuff and fitted it for seeding down, and from the same *ten acres* in 1845, I had over *three hundred bushels of wheat.*

Clark Beardsley.

Avon, Oakland co., March, 1848.

Mr. Isham:—I have witnessed the operation of the subsoil plow spoken of by Mr. Beardsley, on a farm of mine in Oakland county, and can see but little further to be desired in the shape of a plow for old land. The field where I used it, had been some eighteen years under cultivation, and of course was free from stumps and roots: soil loam. One yoke of oxen and a span of horses were used on the plow. The first, or forward shire, cut about four inches deep and ten inches wide, cutting below the roots of grass and weeds, and completely turning the ground top side down into the preceding furrow. The main plow cut about six inches in depth, and of the same width as the first, the earth not being held together by the roots of the grass and weeds, crumbled as it rose in the plow, and was perfectly turned over on the first, completely burying the roots, grass and weeds *ten inches* deep and not leaving a sign of vegetation on the surface of the whole field. It was fully ready for the seed, no cross plowing and no dragging required until the seed was sown, and that fell into a soft *deep* bed of earth, several inches of which had never seen the light before.

This plow runs very steady, and for many yards together without being held. Those who have once used it on old lands, I think will never do without one.

B. F. H. Witherell.

Detroit, March 26, 1848.

☞The subject of the following communication is an important one. The farmers in Michigan will see the day, when they will wish in vain, that they had been a little more provident in this matter.

For the Michigan Farmer.

Hints upon Fencing.

Mr. Editor:—Fencing forms no inconsiderable item in the yearly expenses of the farmer. Add to this the great waste of timber which necessarily follows the ordinary method of fencing, and the farmer will find that good economy will require him to adopt some less expensive mode. Two things should govern him—cheapness and permanency, or durability, and if a third can be added, to wit, beauty, without increasing the expense or lessening the durability, it would certainly be preferred by the man of taste. The Virginia rail fence is, excepting where there is a superabundance of timber, the most expensive mode that can be adopted, and still it is almost exclusively the one in vogue. It is not thus in Europe: they have been compelled for the want of timber to resort to hedging, which makes, when properly constructed, a fence that will afford the most perfect protection to crops, and when made of proper materials, will be permanent, and highly ornamental.

The only question to be settled is, can the proper materials be obtained and the fence constructed at a cost that will bring it within the reach of every farmer, however limited his means? For years I have never entertained a doubt upon the subject, and from a careful estimate, I affirm, and am ready to demonstrate to any one who may desire it, that it is decidedly the cheapest fence that can be made, if durability is taken, as it should be, into the account, and the farmer can do it all within himself. He need not spend a farthing in money. The material for building it can be fonnd in great abundance upon every farm. I allude to the common thorn of the country. There is one variety, with its small glossy leaf and numerous thorns, that is very beautiful, and is equal to any thorn that can be produced, and it is easily propagated from the seed. When the hedge is pro-

perly set and cared for, it would afford a sufficient protection in five years. The way and manner of preparing the seed and setting the hedge, with its treatment, will be most cheerfully communicated, should any one of your readers desire it. A.

From our Scientific Correspondent.

For the Michigan Farmer.

CHEMICAL AND SCIENTIFIC TERMS USED IN AGRICULTURE.

NO. II.

The earth, or soil, consists of a mixture of various ingredients, but the greater part of it is composed of certain substances called earths.—Some of these are bases, and resemble the alkalies. The remainder are not bases, that is to say, they have no affinity for acids, and cannot combine with them to form salts. The most important of the earths which are bases, are

1. *Oxide of Calcium—Lime.* It has a strong attraction for acids, being able to decompose the salts of the alkalies; and for this reason it is customary to mix quick lime with wood ashes, which contain comparatively little free potash, as the greater part is combined with carbonic acid, when it is desired to make a very strong ley. For this reason likewise, lime is the best corrector of *sourness* in land. Lime never occurs in a pure state, in nature. The common form is carbonate of lime, in chalk, limestone, and shells; and phosphate of lime in bones. By burning, the carbonic acid is driven off, and quick lime is the result; but by exposure to the air, this acid is again imbibed, and the caustic power diminished. Quick lime, when mixed with vegetable or animal substances, accelerates their decay, and absorbs many of the products of putrefaction; but is injurious in barnyard manures, from driving off the ammonia. Lime is one of the most valuable of manures, acting as it does in various ways, according as it is applied. It decomposes vegetable matter in the soil, as well as various salts and silicates, preparing them as food for the plant. It neutralises injurious acids. It acts mechanically in stiffening light soils; and lightening heavy ones. It enters as a material requisite into plants and grain. It improves the *quality* of almost every cultivated crop. It hastens the maturity of the crop; at the same time, it should be used advisedly—as various soils are differently affected by it; and some are already sufficiently full of it.—*Marl* is am impure lime.

2. *Magnesia.* Is somewhat similar to lime, but far less common and abundant. Like lime, it is the oxide of a very combustible metal, which, exposed to the air, soon takes oxygen, and forms the earth. It generally occurs in connection with lime, forming what is called magnesian limestone, which is a mixture of carbonate of lime and carbonate of magnesia. The commonest forms of it are the carbonate, the sulphate, the muriate, and the phosphate. *Epsom salts* are a sulphate of magnesia, and enter largely into modern artificial manures, as most cultivated plants contain more or less of it.

Alumina. Pure clay. It occurs both pure and in combination, but it is most usually met with mixed with another earth called silex, and combined with a quantity of water. It is sometimes found pure and constitutes the precious stones called the ruby and sapphire. *Alumina* is the oxide of a metal called aluminum. Clay combines with acids to form salts, but is quite insoluble in water, has no caustic powers, and does not absorb carbonic acid from the air, but has a peculiar power of absorbing and retaining, mechanically, various gasses.

Sulphate of alumina and potash is common alum.

4. *Silica or Silex.* Quarts, sand and flint, and composing, in part most of the hard rocks. It is unable to combine with acids; indeed it has rather the character of an acid, for it is able to combine with the alkalies. In this shape it is easily dissolved in water. The straw of grain, the bark of the hickory and many other trees, the husk of seeds, &c, all contain a large portion of this earth, and without it are unable to come to perfection. The soil often contains a very large amount of silica, but in a dormant, or useless state; in which case the straw is weak and the plant falls. To cure this defect, a heavy manuring with ashes, summer fallowing, or putting the land to *pasture*, not *meadow*, are all good; as in the first case, the silica is chemically dissolved and prepared; in the others the air and water produce a similar effect. Grass contains a very large portion of it. Glass is only a combination of silica and alkali, acted on by heat.

Iron, a well known metal, entering into most plants, and always found in the blood, While thus necessary in the earth, too great a proportion of it is injurious to vegetation. Its principle forms are 1. *Pyrites*—sulphuret of Iron.—2. *Sulphate of Iron*—green vitriol, a soluble salt greatly used in dying, and valuable as a cheap mode of fixing the ammonia of manure by forming the sulphate.

Manganese. A metal, in many respects like iron, but of little practical value. It exists in minute quantities in many plants.

Granite. A rock consisting of three simple minerals, quartz, mica, and felspar. When mica is wanting, and hornblende occurs in its stead the rock is called syenite. In southern Michigan, all these frequently occur as boulders on the surface, or broken up as pebbles in the soil, having been brought by the effects of water from other parts. Quartz is pure silica. Felspar

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consists of silica, alumina and potash, and soda, and is therefore valuable in the soil. Mica contains besides these minerals, iron, magnesia and fluoric acid, and hornblende is nearly similar in its composition.

Trap Rocks. Rocks of igneous origin, the most important of which are greenstone, basalt, and serpentine.

Lignin—Woody fibre. This exists in nearly all plants, forming the greater part of the stem, bark, branches, &c. It constitutes dressed hemp and flax. It is composed of the three gasses, carbon, oxygen, and hydrogen.

Starch is found in all plants, but principally in the seed. It is composed of the same gasses as the last, but in different proportions. It forms from 40 to 85 per cent of all the valuable grains, rice and Indian corn containing the most. In the growth of the seed, starch supplies carbonic acid and water to the young plant, as well as forms sugar; thence the sweetness of malted barley.

Gluten, a greyish white, soft, solid substance, elastic and tough, almost like a piece of skin.—It forms a part of most seeds, wheat containing a large proportion; thence the adhesiveness of dough.

Albumen, a white solid substance soluble in water. It is found in seeds and animals. The white of an egg is nearly pure albumen; it occurs in blood, and various tissues; and hair is composed of it with gelatine. It consists of carbon, hydrogen, nitrogen, oxygen, phosphorus and sulphur.

Fibrin, a white, elastic substance insoluble in water. Its composition is almost the same as that of albumen. It forms plants, as well as the flesh and blood of animals.

Caseine, a substance nearly resembling albumen, but insoluble in water. It exists in milk, and is the principal ingredient in cheese.

Gelatine, is a tough, colorless substance; in cold water it very slowly softens and dissolves; in boiling water it dissolves more readily and forms a jelly as it cools. The skin, bones and hoofs of animals consist principally of this, as likewise do glue and isinglass.

Humus, is the name given to all kinds of vegetable matter in a state of decay, and more especially woody fibre. It is this which gives the peculiar odor to the rich black soils of the prairies, and is recognized in old decayed trees in the forest, as of a reddish brown hue. Its use in the soil appears to be to supply carbonic acid gas. In water it dissolves slowly and in minute proportions; but water containing potash or soda dissolve it much more rapidly. Humus always contains nitrogen, the origin of ammonia, and thence by the action of quicklime upon the decayed vegetable matter, the nitrogen is given off ready for the use of all the plants, as well as forming nitrate of potash, of ammonia or of lime; all useful, or necessary to growth.

NEW INVENTIONS.

Metallic fire-Proof Paint.—This is a discovery to which we have before alluded, but now we have the pleasure of being able to give our readers a more particular description, derived from the discoverer himself whose preparation seems to elicit very high commendation.

The article is found in abundance on the lands of Mr. W. Blake, near Akron Ohio, and is likely to prove an invaluable discovery. It is being extensivly used in the West for steamboat decks, for the first coating upon buildings, as cement for roofs, and surfaces much exposed to fire. Any work covered with this cement presents a smooth black surface and is susceptible of the finest polish. In a few months it becomes equal in consistency to marble, and perfectly impervious to fire or water.—So long as the substance to which it is applied lasts, so long will the cement remain unimpaired. When taken from the earth in its crude state it very nearly resembles indigo, and yields under the knife like clay, but when exposed for a short time to the action of the atmosphere it becomes perfectly solidified like stone or hard shale. Whether applied to shingles, boards, canvass or paper, its effects are the same, presenting a surface impervious to fire and water. This paint when applied to a floor will answer equal to stone if sufficiently dried. It will become as hard as other paint in about the same time, but still continues to harden with age. A chemical combination seems to take place between the oil and the mineral substance, which soon deprives it of its inflamable qualities.

Valuable Discovery.—A Substitute for White Lead.—A discovery has recently been made in France which promises to be exceedingly valuable in the useful arts. The information is interesting and embodied in a report read at a recent session of the French Academy of Arts which is published in the Paris papers, from which we learn that in 1835 M. Leclaire, a house painter, having witnessed the ravages that white lead made among the workmen engaged in his business, set himself to seek for some white substance, which could take the place in the arts of the poisonous article which had been heretofore used. After having examined all the white substances which nature offers, he finally arrived at white of zinc, and he discovered that this oxyde had all the qualities of the white of lead, without having any of its inconveniences.

Whiter than the white lead, the oxyde of zinc reflects the light instead of absorbing it, gives a finer tone, and covers better the surface on which it is spread. Moreover it is not subjected to any of the action of the sulphurs, which blacken so quickly paintings in white lead. Finally, and it is the capital point, the preparation and use of it do not in any way affect the health of the workmen.

GENERAL INTELLIGENCE.

Foreign News.—By a Telegraphic dispatch dated New York, April 10th (Monday) the arrival of the Hibernia is announced, bringing advices seven days later from Europe. All Europe seems to be in convulsion. In France financial dificulties seem to cause the greatest trouble to the new government. A run was made on the Bank of France, and a suspension of specie payments authorized. The Austrian Ambassador notified the Provisional Government that Austria would not interfere with France. Russia has adopted the non intervention policy. Disturbances have taken place in Vienna. The troops fired on the people. Prince Metternich has been driven off, his house burned, and the revolution is complete.—Grand Dukes have retired to private life. The Emperor of Austria has granted the liberty of the press and made other concessions. The people are in rebellion in Wurtemberg. The Duke of Saxe Cuburg Gotha promises a constitution. Disturbances prevail all over Germany.—The people are burning the castles of the nobility. At Warsaw censorship has prohibited the mention of the French Revolution. At Posen, the Revolution created great sensation. There are fears of outbreaks in Scotland.—The people are in arms against Elector of Hesse Cassel. Ten days have been given to decide, to grant or refuse reforms. The Grand Duke Wiemer was besieged in his palace, when he promised the liberty of the press &c. Elector of Hesse Cassel barely escaped with his life. Duke of Nassau and free city of Lubec decreed the liberty of the press. Disturbances have taken place at Hamburg and Lubec. The Duke and Dutchess D'Aumale and Prince de Joinville have gone to England. In Italy, a revolution has taken place in Lombarby. The viceroy has fled from Milan and the people are triumphant. The Pope has granted a constitution to the people. A republic has been proclaimed in Cracow, order is maintained. In Hanover the King has abolished the censorship of the press, and promised other reforms. *Denmark.*—Great disturbances. German Duchies rejects the King's plan of uniting them with Denmark. Hungary and Bohemia all alive on the point of revolt. The King of Bavaria is reported to have abdicated. Russia is making preparations for self defence. Luxemburg declares itself a republic. Ireland is tranquil. The leader of Young Ireland has been arrested for sedition. *Berlin.*—Hard fighting took place between the government troops and the people. The people fired from behind barricades and from the roofs of houses, and did great execution. The troops fired grape and a great deal of blood was shed. The alarm bells were rung, and universal terror prevailed. The next day the King proclaimed an amnesty, on which occasion a change of ministry took place and the King promised to forget and forgive all, and hoped the people would do the same. Reforms granted.

Mexico—The court Martial has commenced its sittings at Perote, but its labors are likely to be greatly abridged, the charges against General Scott, and also those against General Duncan having been withdrawn, those against General Pillow only remaining to be investigated, should they not also be withdrawn. A battle has been fought at el Passo, New Mexico, between 800 Americans who had possession of the pass, and some 4000 Mexicans who assailed them. The latter were repulsed. Reports in regard to Santa Anna are still contradictory: at one time he is about to leave the country and has got his passports, and at another he is taking measures to renew the war. Reports in regard to the probable action of the Mexican Congress upon the proposed treaty, are also various and discordant.

☞There has been a spirited rail-road meeting at Romeo, for the purpose of taking measures, and raising means for the speedy construction of a rail-road from Detroit through Utica and Romeo to Port Huron, to serve as a continuation of the great central rail-road through Canada, which it was contended, would in that case have only one terminating point, and that Port Sarnia. The charter of the Detroit and Shelby rail-road has been amended and re-christened accordingly.

☞We have not yet seen any list of the acts passed by the Legislature. The homestead exemption bill was passed. It exempts from liability to execution and sale, forty acres of land with its appendages, or a house and lot in a village or city, for all debts contracted after July. The bill to extend the charter of the Farmer's and Mechanics Bank was passed, but vetoed by the Governor. One good thing, at least, has been done, viz., re-christening the Capital, and calling it Lansing instead of Michigan.

☞John Jacob Astor, the great American financier, is dead.

Congress.—No very important measures have been matured by the present Congress. The ten regiment bill has passed the Senate, but lingers in the House, where it will probably be defeated. There has been no action in relation to the French Revolution, some being fierce for an immediate expression, and others for waiting awhile, to see how matters come out.

By the new constitution just adopted in Illinois, the Secretary of State, Auditor, Treasurer, Judges, and Clerks of the Supreme and Circuit Courts, and State's Attorneys, as well as the members of the Legislature and Govenor are to be elected by the people. Members of the General Assembly are to be elected for two years. The Governor and Lieut. Governor, Auditor, Treasurer, Secretary of State, are to be elected for *four* years.

XUM

☞ We are under obligation to our friend, Judge Barker, of Plymouth, as well as to the P. M. of that place, for the interest they have taken in extending the circulation of the Farmer—good examples. Other names might be mentioned, and will be. Who will go and do likewise? *Bear in mind*, that we contemplate vast improvements upon the Farmer a few months hence, and it shall not be our fault, if it is inferior to any publication of the kind on the American continent, in any respect, even in "cheapness," in which there has been discovered such a wonderful merit of late, and that too where there was little else to praise. Will you have it so?

☞ Will Mr. Hurd, of Greenfield, tell the farmers of Michigan "what he knows" about muck, and also about artichokes? When is friend Todd going to tell "what he knows" about putting in wheat? When is that communication from Hon. J. D. Pierce, about sheep raising, to be forth coming? If we mistake not, Mr. P. is a large wool-grower, and something deserving attention may be expected from that quarter.—It appears to us that Mr. Gilkey, of Richland, might have something useful to communicate on that subject also. What is it, that Hon. John Shearer, of Plymouth, has to communicate about a certain field of wheat?

TERMS.—The Michigan Farmer is published at Detroit, twice a month, by Warren Isham, at one dollar a year in advance—after three months $1 25—after six months $1 50—after nine months $1 75. No subscription taken for less than one year, nor discontinued till all arrerages are paid. To clubs, five copies for four dollars.

Office, on King's corner, third story.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.	$	a$4 75	Salt,	$1 25	a$1 50
Corn, bus.		a 44	Butter,	15	a 20
Oats,		a 28	Eggs, doz.		9
Rye,	31½	a 50	Hides, lb.	3	a 7
Barley,	56	a	Wood, cord,	2 25	a 2 50
Hogs, 100 lbs.	3 00	a 3 50	Wheat, bus.		90
Apples, bush		a 1 00	Hams, lb.	6	a 7
Potatoes,	35	a 50	Onions, bu.	41	a 50
Hay, ton,	8 00	a10 00	Cranberries,		a 1 25
Wool, lb.	22	a 28	Buckwheat 100 lbs.		1 50
Pig iron, ton,	35 00	a40 00	Indian meal, "		1 00
Coal, Leh.	11 00	a13 00	Beef, do	2 50	a 3 50
do Ohio,	4 00	a 5 00	Lard, lb. retail,		7
Peas, bu,		a 75	Honey.		10
Beans,	75	a 80	Apples, dried,		1 50
Beef, bbl.	5 00	a 6 00	Peaches, do		a 2 00
Pork,	8 00	a10 00	Clover seed, bu.		4 50
White fish,	6 00	a 7 00	Herd's grass do do		1 00
Trout,	5 50	a 6 50	Flax do		75
Cod fish, lb.	5	a 5¾	Lime, " bbl		75
Cheese,	6	a 8			

AT THE DETROIT NURSERY AND GARDEN, situated on the Chicago Road, one and a quarter miles from the Detroit City Hall, may be found a good stock of fruit, and ornamental trees and shrubbery.

We have very fine trees of all the best varieties of Pear, (both dwarf and standard,) Apple, Peach, Plum, Cherry, Nectarine, Apricot &c., which, together with a large assortment of ornamental trees and shrubbery will be sold as low as at the Eastern markets.

Orders left at the store of John Palmer and Co. No. 108 Jefferson Avenue, or at the nursery, will be punctually attended to.

J. C. HOLMES.

Detroit April 7th 1848.

Back Volumes of the Farmer.

Volumes IV and V, neatly put up in pamphlet form, for sale at 50 cents a volume. They can be forwarded by mail or otherwise, as may be directed. Address H. Hurlbut, Detroit.

Detroit Wool Depot.

In Atwater Street, back of the Michigan Exchange, formerly the storehouse of Gillet and Desnoyers.

THE undersigned will open a depot at the above mentioned place, and be prepared to receive from farmers their wool immediately after shearing. His plan will be similar to that of the Eastern depots, which have proved so satisfactory to both wool-growers and manufacturers; that is, if lots of wool are of an even quality, and if the owner wishes, each man's clip will be kept and sold separately. If not even in quality, they will be thrown into sorts according to quality and condition. As soon as a sufficient quantity is collected, Eastern manufacturers will be invited to examine and purchase. No difficulty is anticipated in effecting prompt cash sales, at good rates, as the orders on wool depots from manufacturers, have hitherto generally outrun the supply. Wool may be delivered at the depot from wagons, or if sent by Railroad, will be taken by me from the carhouse, without expense or care to the owner. It will be sufficient for him to put his wool aboard the cars, taking a receipt for the same, mark the bales with his name, and consign them to the "Detroit Wool Depot," and all will be safe. Insurance will be effected on all lots as soon as arrived. All charges, *including insurance*, cartage, sorting, storage, shipping and for effecting sale, will be included in a commission of one and a half cents on the pound.

Eardley Ives.

Detroit March 27th, 1848.

References.—E. P. Hastings, C. C. Trowbridge, B. F. .H Witherell, Z. Pitcher, M. D. M. Palmer, Shubael Conant.

Improved Railroad Portable Horse Powers, and Over-shot Threshing Machines and Separators.—Having sold upwards of seventy setts of the above celebrated machines the past season, and to many large farmers in this state, Vermont, Massachusetts, Michigan, Ohio, Ilinois, Wisconsin, Canada, and with entire satisfaction in every case, the subscriber would call the particular attention of farmers and mechanics desiring such machines, before purchasing—as he is prepared to offer a better finished article, with some slight improvements, at a less price, than before—for full particulars, description, &c, see catalogue, furnished gratis at the warehouse, Number 10 and 12, Green street, Albany, or by mail to those desiring them. Horace L. Emery.

Abany March 10th, 1848.

PETERS'

BUFFALO WOOL DEPOT,

SECOND YEAR.

I have established a Wool Depot upon the following plan: *First*, The Wool is thrown into 10 sorts; Merino wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2.—Combing and De Laines make 2 sorts more. *Second*, I charge for receiving, sorting, storing, and selling, one cent per pound; this includes all charges at Depot, except insurance. *Third*, Sales are made for cash, except when otherwise directed by owner.

☞ All wool consigned to me should be marked with the owner's name.

Warehouse corner Washington and Exchange streets.

Buffalo, Jan. 1, 1848. T. C. PETERS.

Printed by Garrett & Geiger, at their Job Printing establishment, corner of Jefferson and Woodward Avenues, over King's store, Detroit.